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ABSTRACT

Areas of student reaction to the university, including student activities, opinions about college, perception of the college environment, and estimates of gains were investigated. Subjects were a random sample of undergraduate students at the Indiana University (Bloomington campus) in the spring of 1979, who completed the Pace College Student Experiences Scales. Results indicated that: (1) the intellectual impact of the university is considerably bolstered by activities outside the formal classroom: (2) the higher the class rank, the more students participated in extracurricular activities: (3) men reported significantly more involvement in athletics, and women in interpersonal activities: (4) women reported more gains than men in literary and aesthetic areas; and (5) off-campus students tended to report more gains in understanding scientific applications and technological developments than on-campus students. (Author/HLM)

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RESULTS OF AN ADMINISTRATION OF THE PACE COLLEGE STUDENT EXPERIENCES SCALES AT INDIANA UNIVERSITY, BLOOMINGTON

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Introduction

This report discusses the results of a survey of Indiana University, Bloomington undergraduates, conducted late in the 1979 spring semester. The primary goal of the survey, developed by C. Robert Pace of UCLA, is to assess four areas of student reaction to the university. These areas are:

1) Student Activities - organized in 10-question scales relating to

   library use
   interaction with faculty
   course work
   art, music, theater
   student union
   athletic and recreational facilities
   clubs and organizations
   writing experiences
   personal experiences
   student acquaintances
   dormitory or fraternity/sorority
   science lab
   conversation

2) Opinions about College

3) Perception of the College Environment

4) Estimates of Gains

The Activity scales which comprise the primary content of the questionnaire, were constructed in such a way as to attempt to reflect both quantitative and qualitative dimensions of student efforts. That is, the total scale scores for each Activity scale are concerned with both frequency of and level of involvement of the particular activity. For example, the Library Experiences scale includes items asking about frequency of using the library as a place in which to study (low involvement) and those inquiring about tracing back a reference made by author (high involvement).

The study addresses a series of questions directed at interrelationships of the areas covered by the survey. For instance, one of the questions is, is there a relationship between Indiana University students' estimated sources of gain from the university experience and the university activities they report taking part in? Another question is, do college men and women differ in their reported participation in activities covered by the scales and in their attitude toward the university and their estimate of gains from the college experience?

Also, a variety of studies have been conducted on the impact of living on campus on students. Not surprisingly, students living on campus tend to

be more involved in campus activities. Thus, as an extension of these studies the present investigation asks, do students in the late 1970's living on campus differ from those off campus in terms of a variety of reactions to the university? Furthermore, there is interest in how undergraduates differ by class with regard to these reactions. Can any trends be perceived as students progress through their undergraduate careers?

In addition, given today's economic climate, whether to work or not work during the school year is an especially significant question faced by many students. Thus, there is interest in the question, how do students who work differ from those who have no jobs, with regard to the kinds of reactions covered by the questionnaire?

Finally, keeping in mind the fact that Pace's norming procedures allow for only tentative cross-institutional comparisons at this time, comparisons between the IUB sample and similar institutions across the country will be drawn.

Method

Subjects

A computer-generated random sample of 1000 students was drawn from the IUB undergraduate student body in the spring of 1979. Of the 1000 questionnaires mailed to this group, approximately fifty were returned as being undeliverable. Additionally, nineteen students selected by the random sampling procedure were graduates, so they were discarded from the sample. Hence the usable portion of the original sample was close to 930 at the time of the data analysis.

Three hundred and eighty-one questionnaires were returned, yielding an overall return rate of approximately 41 per cent. This is not as high as the investigators might have wished. However, it needs to be looked at in the context of the data's being collected late in the spring semester, when students, particularly residence hall students, had already completed a variety of surveys.

Appendix A contains the instrument itself and the percentages of the student responses broken down with regard to each item. As can be seen in the Background section, the sample is reasonably representative of the IUB population in terms of age breakdown, sex, marital and class status, and place of residence. It can be noted that juniors are slightly over-represented in the sample (22%). Also, the breakdown by major is such that business students are over-represented (32% of sample) and social sciences slightly under-represented (12% in sample). Further, it is important to recognize that minority students also are under-represented (6%).

The Instrument

The instrument was developed by Professor C. Robert Pace and his associates at the University of California, Los Angeles. It had been

in preparation for over two years. Preliminary versions of all the scales were pretested. The final version of the items results from statistical analyses of the pre-test data came from samples of students at a dozen to two dozen colleges and universities, with from 250 to 450 student responses on each of the scales.[1]

Procedures

Letters were sent to the student sample requesting their cooperation in completing the instrument. Students were asked to report to a table located in Student Services Building to complete the questionnaire. This procedure yielded a poor return (approximately 100 questionnaires), so a follow-up procedure was employed. Blank questionnaires with return envelopes and a second cover letter requesting cooperation were mailed to non-respondents living off campus, and delivered to those in residence halls or Greek letter houses.

Completed questionnaires were then processed by Intran Corporation Minneapolis, Minnesota. Intran Corporation handled the data for all participating colleges and universities.

Frequency distributions, item means and modes were forwarded to participating institutions, as was the raw local data for further analyses of interest to the particular institution. Additional national statistical comparisons were carried out by Professor Pace's research group at UCLA and made available to institutions requesting them.

Data Analysis and Results - Local Question

Four-way analyses of variance were computed on the scale scores in the COLLEGE ACTIVITIES, OPINIONS ABOUT COLLEGE, COLLEGE ENVIRONMENT, and ESTIMATES OF GAINS SECTIONS of the PACE. The four factors in each analysis were place of residence, sex, class, and whether or not the student was employed. Place of residence was defined as living either on or off campus, and class was limited to freshmen, sophomores, juniors, and seniors. The alpha level of significance was set at .01. Scales with no significant differences are not reported. A more technical explanation of these procedures is available from the authors.

Results

COLLEGE ACTIVITIES SECTION

Library Experiences. Differences in library experiences could be attributed to the class of the respondent only. Freshmen, interestingly

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[1] More detailed statistical information about the instrument is available from the first author.

enough, scored slightly higher on their use of the library than did sophomores. However, only freshmen and sophomores were significantly different from seniors on their use of library resources. The trend in the average responses indicates that as the students' class level increases, their experiences in using library resources also increase.

Experience with Faculty. The experience-with-faculty analysis found that differences could also be attributed to class. Freshmen were found to have significantly less interaction with faculty members than seniors. Again, the linear trend in data (shown in Figure 1) indicates rather clearly that as students progress from freshmen to seniors, their contact with faculty members also increases.

Art, Music, and Theater. For the art, music, and theater scale there was a significant interaction between place of residence and sex. The differences could not be attributed to men and women living on campus. However, women living off campus participated significantly more in these activities than did men living off campus. For the items relating solely to art, men scored significantly lower than did women. Men also scored lower on items dealing with theater. No differences were found between men and women in their participation in activities relating strictly to the music items.

Student Union. There were no significant differences on this scale for place of residence, sex, or class.

Athletic and Recreation Facilities. Consistent with the stereotype, men used the athletic and recreation facilities significantly more than did women.

Clubs and Organizations. For the clubs and organizations, scale differences could again be attributed to class. From the data, it is clear that there is a linear trend with freshmen being less involved in campus clubs and organizations, and seniors being the most involved. Although just an assumption, it appears that as students become more familiar with the campus, they become more involved with activities on campus.

Place of residence also contributed to scale differences. As might be expected, students living on campus participated more in campus clubs and organizations than those living off campus.

Experiences in Writing. Women scored higher than men indicating that they took more time and used more resources in writing and revising papers. Class also contributed to differences with freshmen scoring higher than sophomores and juniors with seniors scoring the highest. As can be seen in Figure 2, sophomores demonstrated less involvement in their writing than freshmen, juniors or seniors. It is likely that freshmen showed more involvement than either sophomores or juniors because the English Composition requirement is generally taken during the freshman year.

Personal Experiences. Women reported being more interpersonally involved than men.

Topic of Conversation. There was an interaction effect between class and place of residence. It is apparent from Figure 3 that freshmen living off campus have talked about the items in the scale less often than freshmen living on campus. This makes intuitive sense because students living on campus have roommates or live in close proximity to others. Students living off campus, and especially freshmen, have less opportunity to communicate until they begin to get acquainted with others.

Number of Times. Although this section is not entitled as such, students were asked to respond to the number of times they had done items included in this section. There were three of the items that were answered differently by the students. Those living on campus attended more programs and events put on by a student group than did students living off campus. Students also living on campus had more serious discussions, than did those living off campus, with students whose philosphy of life or personal values were very different from their own.

There was an interaction between class and place of residence that did not make intuitive sense. The interaction is presented in Figure 4. The figure represents the student responses to how often they identified with a character in a book or movie and wondered what they might have done under similar circumstances.

OPINIONS ABOUT COLLEGE

Response frequencies, which indicate an overall positive reaction to Indiana University, are found in Appendix A.

There were no significant differences on the scales in this section. The scales in this section included how well the respondent likes college, would they return to this school if they had the chance to begin college again, their opinions about student initiative, and an overall opinions about college scale.

General Style of Operation. When students were asked to respond to their relationships with faculty from approachable to remote, there was a significant difference between responses for place of residence. Off campus students felt that faculty members were more approachable, helpful, understanding and encouraging than did students living on campus.

ESTIMATE OF GAINS

Analyses of Variance. Items 5, 13, and 14 deal with a broadening enjoyment of literature, an understanding of the nature of science, and an understanding of scientific and technical development, respectively. With the exception of these items, the class of the student contributed to the significantly different responses to the remaining items. Almost without exception, freshmen experienced the least gain, with evidence of a linear trend resulting in seniors experiencing the most gain for each remaining item. However, the directions for responding to the estimate of gains items asked students to think about their experiences in college. Because

seniors would have more opportunities to acquire these gains, we would expect them to experience the greatest gain.

For the following items, the sex of the respondant also contributed to differences observed in responses:

4) Developing an understanding and enjoyment of art, music, and drama.
5) Broadening your acquaintance and enjoyment of literature.
7) Becoming aware of different philosophies, cultures, and ways of life.
8) Developing your own values and ethical standards.
10) Understanding other people and the ability to get along with different kinds of people.

The results were consistent across the five items with men reporting fewer gains than women.

For several of the interpersonal items (items 8, 9, and 10) and for item 11 (the ability to function as a team member), students living on campus reported more gains than did students living off campus. However, students living off campus reported more gains than students living on campus for understanding scientific applications (item 14).

Those students who were not working reported more gains in the area of background and specialization for further education (item 2) than did students that were working and going to school. For items dealing with analytical and quantitative thinking (items 15, and 17), the description of the student gains depends upon whether the student was working or not, and the place of residence. Those students who were not working and living off campus reported more gains on items 15, and 17 than students not working and living on campus. The description of those students who are working and living off campus needs to be reversed. For those students who are working, on campus students reported more gains on items 15, and 17 than did those students living off campus.

There were two significant three-way interactions for items 13 and 16. For item 13, dealing with an understanding of scientific and technical developments, students who were not employed and living off campus almost always reported more gains regardless of their class than did students living on campus. For those employed students the pattern was less interpretable. Basically freshmen living on campus reported more gains, sophomores reported about the same, juniors living off campus reported more gains, and seniors reported about the same.

For gains item 16, dealing with quantitative thinking, male students who were not employed, reported more gains regardless of place of residence than did women. For those students who were employed, women living on campus reported more gains than men, with the reverse being true for students living off campus.

Multiple Regression Analysis. Each estimate of gains item having an average response of (3) "quite a bit", to (4) "very much progress", were included as criterion variables in the analyses. Those items used as criterion variables were:

7) Becoming aware of different philosophies, cultures and ways of life.
8) Developing your own values and ethical standards.
9) Understanding yourself—your abilities, interests, and personality.
10) Understanding other people and the ability to get along with different kinds of people.
17) Ability to put ideas together, to see relationships, similarities, and differences between ideas.
18) Ability to learn on your own, pursue ideas, and find information you need.

These items indicate that the experiences of the college years foster a broadening of one's perspective on life through integrating ideas and developing a sense of self and others. The most frequent scales to enter the regression equations were the personal experiences scale score, the dorm or fraternity/sorority scale score, the strong emphasis on the development of aesthetic, expressive, and creative qualities item, the relationship with other students, student groups, and activities item, and finally, the library experiences scale score.

Data Analysis and Results: The National Context

During the Spring of 1979, the Quality of Effort Scales were administered to undergraduate students at a number of colleges and universities throughout the United States. The institutions, and the number of responses obtained at each of them were as follows:

Doctoral universities	
Indiana University	401 (includes 19 graduate students subsequently omitted from sample)
University of California, Irvine	380
University of California, Los Angeles	862
Comprehensive universities	
California State University at Fresno	344
California State University at Long Beach	462
California State University at Northridge	446
Community Colleges	
Los Angeles City College	180
Pierce Community College	256

Liberal Arts Colleges

Amherst College	186
Macalester College	262
Mercyhurst College	107
Occidental College	193
St. Olaf College	272
	4351

In their report to participating institutions, Pace and Friedlander pointed out that one could not assume that the results for each college were based on a representative sample of students. They suggested that differences between institutions may have reflected sampling differences rather than institutional differences. The sampling techniques employed were:

At UCLA, UCI, IU, and CSUN the sample of students was randomly drawn from computer enrollment files.

Random samples were also drawn at Occidental, Macalester, and St. Olaf. At St. Olaf, however, the random sample of regular students was supplemented by sending the questionnaire to all students in a "special" academic unit. Thus, the total group at St. Olaf was about 2/3 regular students and 1/3 special students.

At four institutions, questionnaires were distributed through classes--LACC, Pierce, Fresno, and Long Beach. This was administratively convenient and inexpensive; and the results obtained may be entirely useful to the individual college. But the results may not be representative of the student body. At the two community colleges, questionnaires were distributed in required English composition classes. This context may have given special weight to students in the college transfer program, and to their responses to the scale on Experiences in Writing and other "academic" scales. At Fresno, a special effort was made to over-sample Mexican-American students. At Long Beach one of the classes was deliberately selected because it enrolled EOP students. Also, at Long Beach the total sample of respondents had a much higher than normal proportion of women.

At Amherst, the questionnaires were distributed to a random sample, but very late in the academic year; and this may have had some influence on the answers.

Mercyhurst, the smallest college in the group, also distributed the smallest number of questionnaires. How the instruments were distributed was not reported.

The response rate at the various colleges ranged from 69% to 36%. Overall, the average response rate was between 45% and 50%.

A number of tables were produced by Pace and Friedlander to compare the results of the participating institutions with one another. Five have been included for the purpose of this report. Table 1 reports the means and standard deviations for the quality of effort scales. To derive a mean score for each scale, items on the scale were ranked from one to four, with one representing the "never" response, two the "occasionally" response, three the "often" response and four the "very often" response. Table 2 simply reports the percentage of students whose scores on the scales were at or above a specified, arbitrary level. In the two tables, Indiana University is doctoral university #3.

Briefly summarizing the results depicted in the tables, Indiana University ranked ahead of her sister doctoral universities on some scales, while it ranked behind doctoral institutions in other scales. In several categories, Indiana ranked in the middle. In many cases, mean differences are very small and may not differ significantly from chance findings. Those scales where Indiana ranked ahead of the other doctoral institutions included the faculty scale, the art, music and theater scale, the athletic facilities scale, the scale on clubs, the self-understanding scale, the student acquaintances scale, the conversation topics scale, and the scale which measured conversation level. Indiana ranked in the middle of those scales which measured library usage, the student union, experience in writing, and residence unit. Indiana ranked last in the scales which measured the classroom quality of effort, and science lab activities. In reviewing these scales, it is important to remember that Indiana was compared with two campuses of the University of California, whose institutional characteristics may be very different than those of Indiana, hence yielding the differences in scores.

When compared with the comprehensive universities, the mean scores for Indiana University generally exceeded those of her sister institutions, except in the area of science lab activities. Whether those scores reflect the fact that Indiana University does not possess either an engineering school or an agriculture school cannot be determined, although one might surmise that as being the reason for the low science lab activities score. Moreover, the differences often were very small, which could reflect sampling errors as much as real differences.

As with the comprehensive universities scores, Indiana mean scores generally exceeded those of the community colleges. The only notable exception was for the quality of effort scale measuring writing activities, where the community college scores exceeded not only Indiana's score, but also those of the other doctoral universities and those of the comprehensive universities.

The scores of the liberal arts colleges generally exceeded those of Indiana University as well as those of all the other institutions in the sample. The selectivity and nature of those institutions on the surface would account for the higher scores of the liberal arts colleges.

In Table 2, specified score levels for the quality of effort scales were established as floors above which the percentage of responses was tallied. The scores reported in this table reflected the same results as with Table 1. In most instances Indiana either exceeded the scores of the

other doctoral institutions, or ranked second. Only in classroom and science lab scales did Indiana rank behind her sister institutions.

Students were asked to evaluate the environment of the institution they attended, the results of which are shown in Tables 3 and 4. In comparing the Indiana scores with those of other doctoral institutions, Indiana had the highest scores for the esthetic, vocational, student relations, student faculty relations and operational style scales. Indiana ranked last on the scales measuring the intellectual and critical environments, while Indiana tied for second on the student-administrator scale. Indiana's scores generally were favorable with those of the comprehensive universities and community colleges, while those of liberal arts institutions usually ranked higher than those of Indiana University.

Table 4 represents scores at arbitrarily selected levels for the environmental scales. The results of these items are generally consistent with those represented in Table 3, with the exception of the esthetic scale. Indiana's mean score ranked first for this scale, but at the arbitrary level, Indiana's score was second. One can surmise that the distribution of responses was responsible for this difference, with institution #1 most likely having a wider distribution of scores at both ends of the continuum, which would lead to a large number of high scores, but a lower mean than Indiana's.

The other area that the study examined was certain opinions students had about college. Pace's research group did not break down the total responses by colleges for these items. In comparing the Indiana responses to those of the total sample, as presented in Table 5, it appears as though Indiana students tend to like their university slightly more than heir colleagues like theirs, that Indiana students would be more likely to start college again at I.U. than their colleagues would at their respective institutions, and Indiana students report that personal initiative is more important for success at Indiana than their fellow students report at their institutions.

Conclusions

What did the results of the study have to say about the Indiana University student body? First, it should be kept in mind that the conclusions are mediated by certain sampling limitations pertaining to return rate and over- and under-representation of certain majors and minority students. With this caveat, it can be noted that student-perceived gains from the university experience tend to center on general intellectual growth involving processes of synthesis and independent learning. Increased self-understanding and broadening of perspective with regard to other people, cultures and values also were marked gains.

Campus activities, which statistical procedures revealed as contributing to these gains, included a variety of interpersonal activities (measured by the Personal Experiences and Dormitory or Fraternity/Sorority scales), library use and experiences, and developing aesthetic, expressive and

creative qualities. In brief, this section of the instrument lends support to the idea that, according to student perceptions, the intellectual impact of the university is considerably bolstered by activities outside the formal classroom.

Other questions addressed by the study included what is the impact of class, sex, place of residence, and student's holding a job as they attend school, on their reported activities and reactions to the university. Class, in many instances, related to student participation in university activities. Generally speaking, a linear trend (the higher the class ranking, the more involved in activities) held across several of the scales. This is scarcely an unexpected finding. The longer students attend a college or university, the more involved they become. Perhaps, the most interesting class finding was a slight corroboration of the "sophomore slump" phenomenon of folk wisdom. On both the Experiences in Writing and Library Experiences scales there was a trend -- on the Writing scale a statistically significant one -- indicating sophomores are less involved.

Turning to significant differences in male and female responses, those that existed on the activities scales were entirely in line with sex-role stereotypes. Men reported significantly more involvement in athletics and women in interpersonal activities. On the Estimate of Gains section women reported more gains than men in literary and aesthetic areas.

There were surprisingly few differences in responses that could be attributed to living on or off-campus. One of the expected ones, replicating the findings of many other studies, is that on-campus students participate more in clubs and organizations. On the other hand, the less intuitive finding is that off-campus students perceive the faculty as being more helpful. It is possible that on-campus students depend more on peers in the living unit (residence hall/Greek letter house) to ask class-related questions, about which off-campus students (in many cases having less proximity to peers) confer with faculty members.

A rather intriguing trend, regarding a general quantitative, scientific, analytic domain and off-on-campus living status surfaced at various points in the data analysis. On more than one section of the instrument students living off-campus tended to report more gains in such areas as understanding scientific applications and technological developments, than on-campus students reported. One possible explanation is that the more scientifically minded students tends to seek less interpersonal involvement, perhaps, and live off-campus.

On some questions there was an interaction between work and living status with regard to this scientific domain. Off-campus students who do not work reported the most gains and activities in the scientific areas. This finding is difficult to account for.

Finally, with regard to the working-not-working-while-attending-school variable the salient result seems to be that few differences in these two groups of students were found. Very few significant differences

surfaced in the reported participation in activities or reactions to the university by these two groups.

In brief, the Pace instrument: 1) documented a positive overall undergraduate response to Indiana University, 2) corroborated that outside-the classroom activities play a key role in students' intellectual gains, 3) indicated that men and women engage equally in many of the same activities but that some sex-role stereotypes are alive and well, and 4) demonstrated few significant differences in the reactions of students living on and off-campus and those working and not working.

Figure 1

Class Means of Total

EXPERIENCES WITH FACULTY Scale

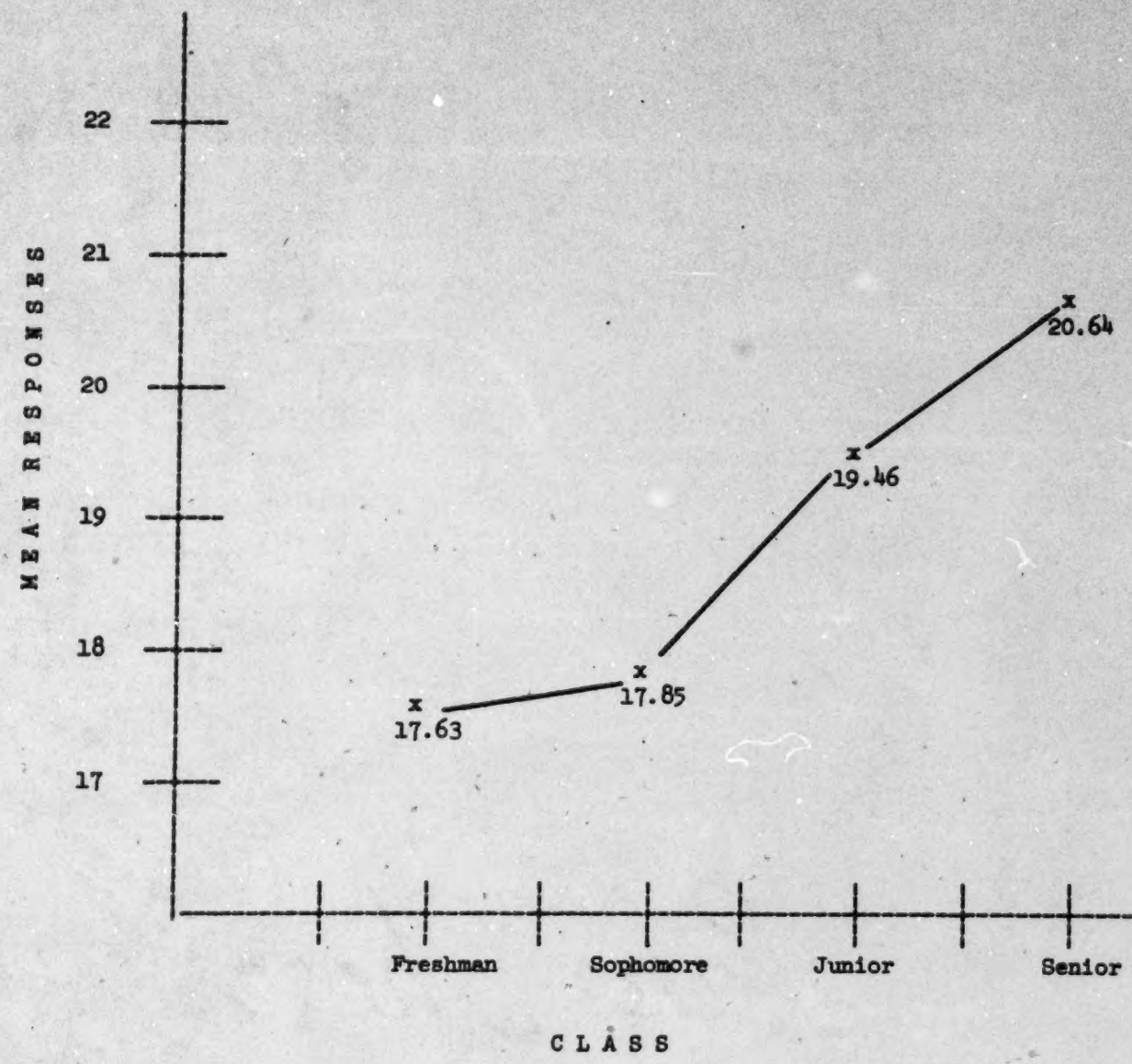

Figure 2

Class Means of Total

EXPERIENCES IN WRITING Scale

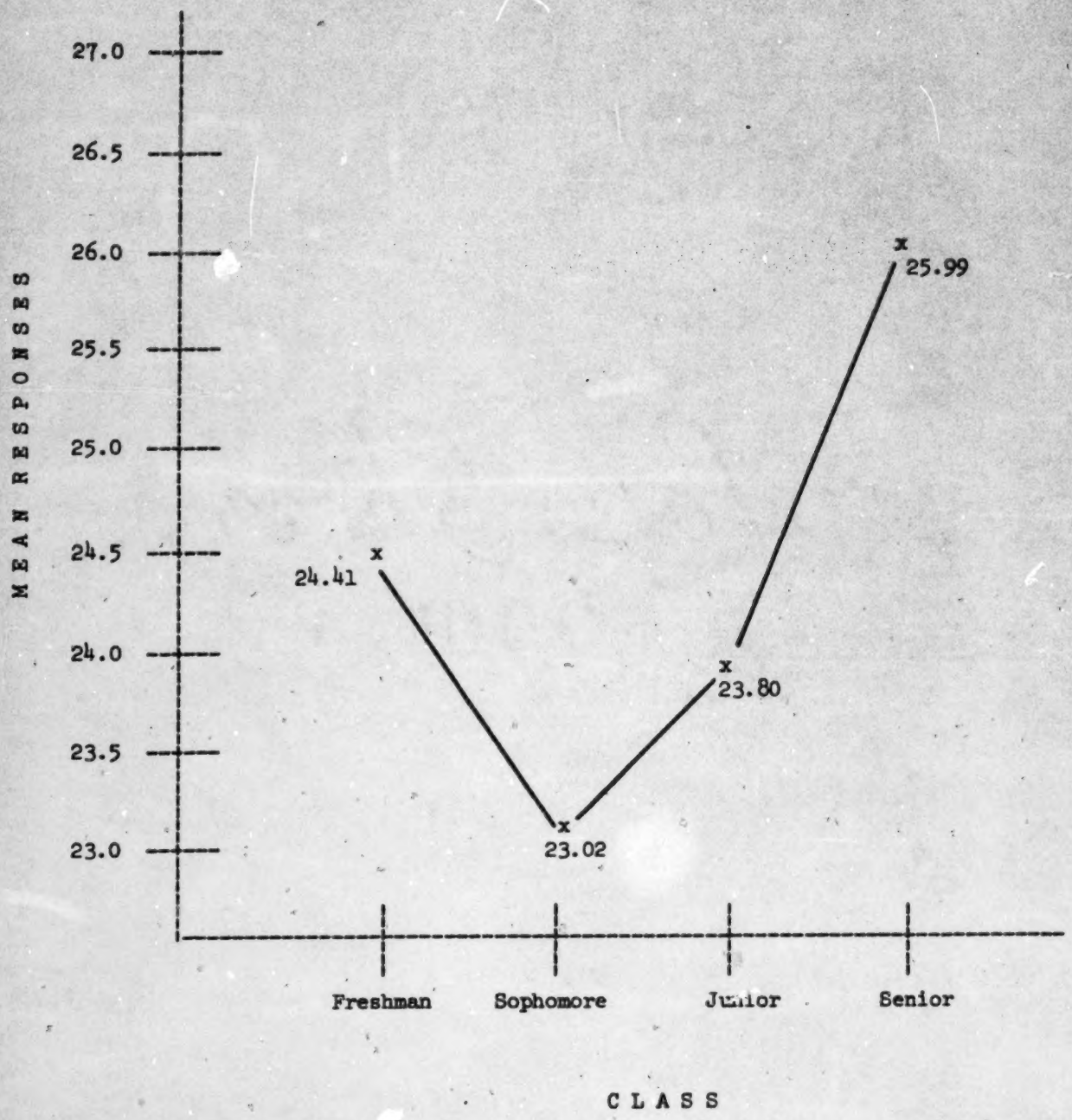

Figure 3

TOPICS OF CONVERSATION

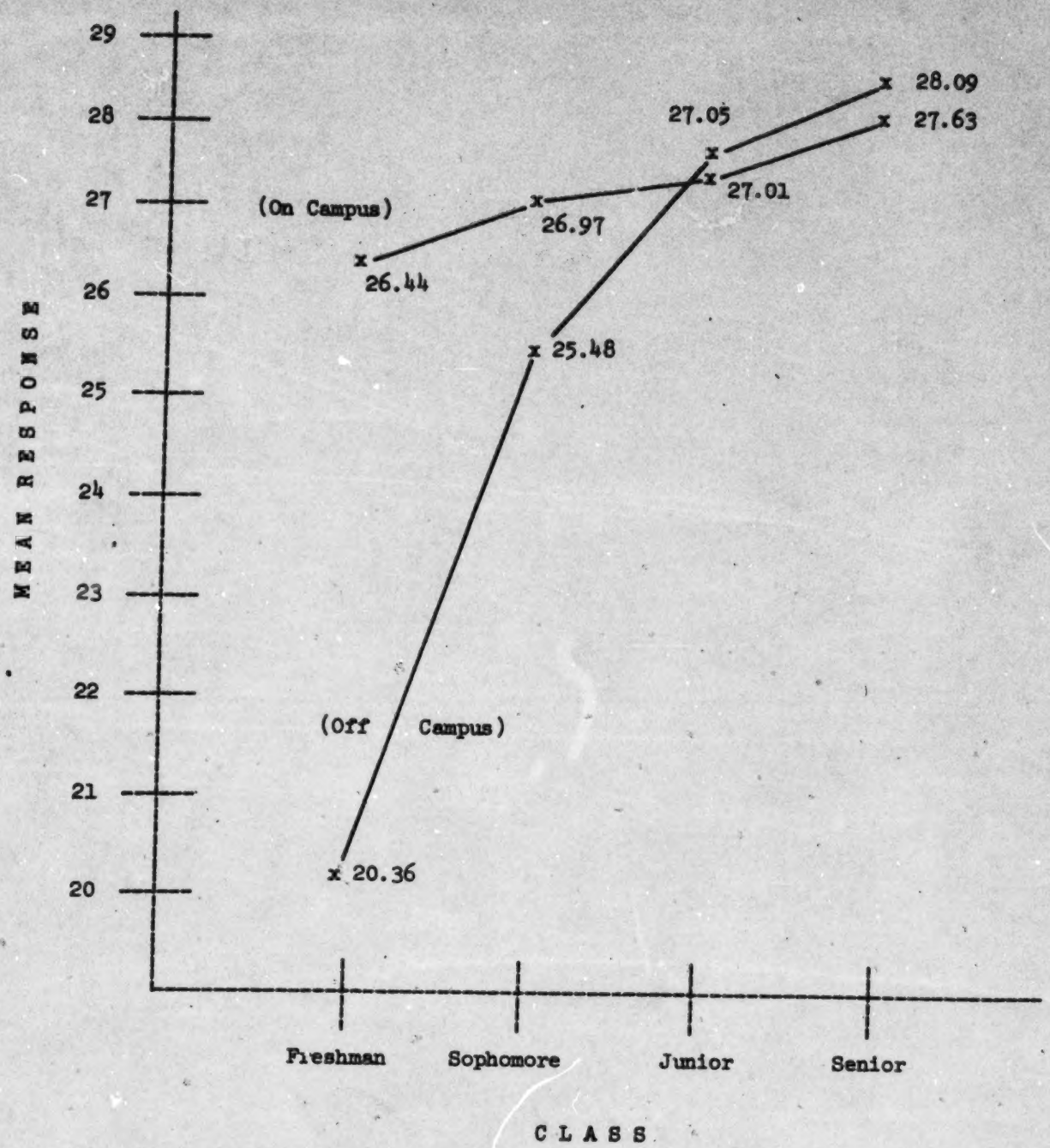

Figure 4

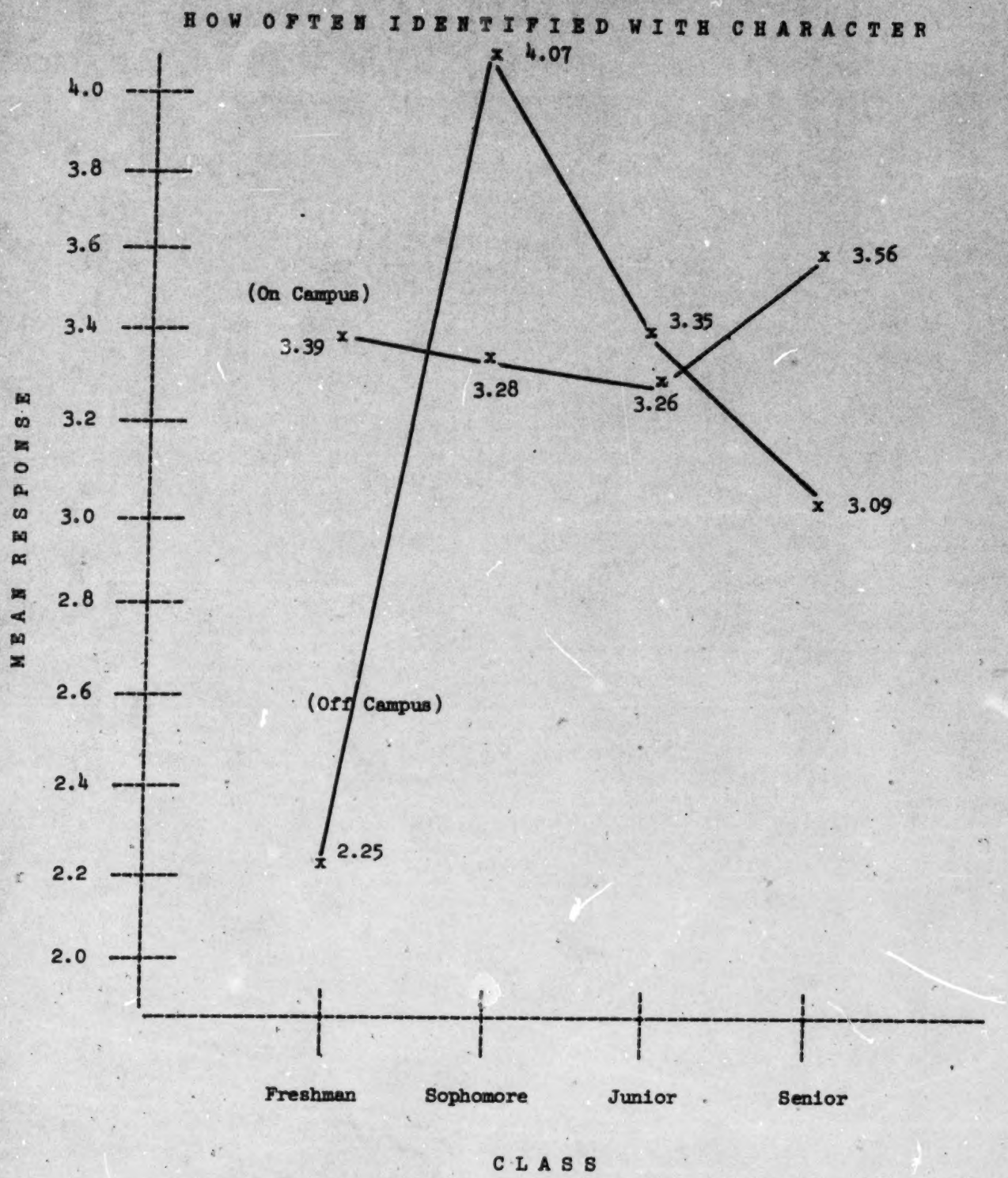
HOW OFTEN IDENTIFIED WITH CHARACTER
4.07
3.56
(On Campus)
3.35
3.39
3.28
3.26
3.09
(Off Campus)
2.25
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
MEAN RESPONSE
Freshman
Sophomore
Junior
Senior
CLASS

Table 1

MEANS AND STANDARD DEVIATIONS FOR QUALITY OF EFFORT SCALES

	Scales									
	Library		Faculty		Classroom		Art, Music, Theater		Student Union	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
Doctoral Universities										
1	18.3	5.0	17.6	5.0	30.0	5.0	19.6	5.7	21.4	5.6
2	18.9	4.8	18.1	5.5	30.0	4.7	18.7	5.9	18.1	5.5
3 (Indiana University)	18.7	4.9	18.9	5.2	29.3	5.0	21.1	6.2	19.4	5.4
Comprehensive Universities										
4	18.4	5.2	17.9	5.0	29.6	5.0	18.6	6.5	18.2	5.3
5	19.8	5.3	19.2	5.1	29.1	5.2	18.1	5.1	20.3	5.5
6	18.5	4.5	18.5	5.0	29.7	5.2	17.7	5.3	18.8	5.6
Community Colleges										
7	18.1	5.5	18.0	4.8	28.8	5.7	17.8	5.7	16.8	5.7
8	20.4	5.4	18.2	5.6	28.9	5.8	18.3	6.7	16.6	5.0
Liberal Arts Colleges										
9	20.2	4.6	24.1	5.9	29.4	5.2	21.4	6.1	23.9	7.0
10	21.9	4.4	22.0	5.7	29.8	4.5	23.8	6.1	26.4	4.5
11	20.6	5.0	20.9	5.0	29.6	5.1	23.3	5.7	21.4	4.7
12	22.7	5.1	22.0	5.5	30.9	4.7	22.6	5.9	25.3	5.2
13	19.8	4.4	21.1	5.4	29.3	4.7	22.3	6.2	21.2	4.8
TOTAL	19.3	5.1	19.0	5.5	29.6	5.1	19.9	6.2	20.3	6.0

Table 1 (cont.)

	Scales (continued)									
	Athletic Facilities		Clubs		Writing		Self-Understanding		Student Acquaintances	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
Doctoral Universities										
1	16.6	6.3	18.3	6.1	24.0	6.1	21.5	5.7	23.3	6.0
2	16.8	6.7	19.1	6.9	24.8	6.0	21.6	6.2	23.5	6.5
3	19.6	7.2	19.7	7.2	24.1	6.1	22.2	5.7	24.7	6.4
Comprehensive Universities										
4	15.0	6.1	15.9	5.4	23.4	5.8	21.6	6.0	22.2	5.9
5	16.4	6.5	16.3	5.5	23.5	5.6	20.5	5.6	23.0	6.3
6	15.0	6.0	16.2	5.6	23.9	6.2	20.9	6.2	21.5	6.2
Community Colleges										
7	17.3	7.0	14.5	5.8	25.1	5.9	20.0	6.2	21.2	6.4
8	17.2	6.9	15.1	5.8	25.5	5.7	21.1	6.4	24.8	7.0
Liberal Arts Colleges										
9	20.3	9.3	25.6	8.3	25.7	5.5	24.5	5.3	25.7	5.7
10	19.4	6.4	21.6	6.4	25.6	5.5	22.6	5.5	24.3	5.4
11	21.3	7.0	24.7	6.4	24.6	4.9	22.6	5.3	27.0	6.0
12	19.1	6.8	23.0	7.0	25.5	5.3	22.0	5.2	26.7	5.6
13	19.7	7.2	21.9	6.6	24.8	5.4	22.1	5.1	26.0	6.1
TOTAL	17.4	6.9	18.6	6.9	24.4	5.9	21.6	5.8	23.7	6.3

Table 1 (cont.)

	Scales (continued)							
	Residence Unit		Science Lab		Conversation Topics		Conversation Level	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
Doctoral Universities								
1	26.5	7.4	23.5	6.5	25.7	5.5	14.7	3.3
2	25.6	7.0	26.4	6.3	25.1	5.5	14.7	3.2
3	26.1	7.1	22.0	6.7	26.5	5.2	14.8	3.2
Comprehensive Universities								
4	22.1	9.0	24.1	6.9	23.6	5.5	14.1	3.3
5	22.4	8.9	22.4	6.4	24.5	5.5	14.0	2.9
6	21.1	9.2	25.0	6.8	24.1	5.6	14.5	3.1
Community Colleges								
7	—	—	21.5	8.6	23.3	5.8	14.4	3.4
8	—	—	22.0	8.2	24.9	6.3	14.9	3.6
Liberal Arts Colleges								
9	27.7	7.2	23.4	7.7	27.1	4.8	14.6	2.5
10	23.4	5.1	23.2	6.1	27.0	4.5	15.1	2.8
11	25.6	5.6	23.4	7.1	27.1	5.0	15.3	2.9
12	25.0	5.5	24.8	6.9	26.6	4.9	15.1	3.0
13	24.6	5.4	24.1	6.9	26.8	5.0	13.1	2.9
TOTAL	24.5	7.2	23.6	6.9	25.3	5.5	14.6	3.2

Table 2

PERCENT OF STUDENTS AT EACH OF THIRTEEN COLLEGES WHOSE SCORES ON THE QUALITY OF EFFORT SCALES WERE AT OR ABOVE A SPECIFIED LEVEL

Scales and Scores	Doctoral Universities			Comprehensive Universities			Community Colleges		Liberal Arts Colleges					Range	Difference
	1	2	3 (In. Univ.)	4	5	6	7	8	9	10	11	12	13		
Library (21+)	30	35	33	34	42	32	32	49	43	60	45	63	40	30-63	33
Faculty (21+)	23	27	31	25	34	31	23	28	71	54	46	56	45	23-71	48
Classroom (31+)	45	47	39	42	39	47	40	41	42	45	44	56	39	39-56	17
Art, Music, Theater (25+)	17	14	25	17	13	11	11	17	23	50	36	31	30	11-50	39
Student Union (21+)	53	33	35	30	45	36	19	19	64	92	55	83	52	19-92	73
Athletic Facilities (21+)	24	25	38	17	21	17	26	27	40	36	46	31	38	17-46	29
Clubs (21+)	27	31	33	16	18	20	11	14	71	46	71	59	47	11-71	60
Writing (26+)	40	44	42	36	35	40	42	44	48	47	40	49	39	35-49	14
Self-Understanding (26+)	24	26	27	25	18	22	18	23	45	24	28	25	25	18-45	27
Student Acquaintances (26+)	34	36	42	25	32	24	22	41	55	38	58	58	53	22-58	36
Residence Unit (26+)	56	51	53	41	34	37	—	—	66	27	49	49	40	27-66	39
Science Lab (26+)	39	57	31	42	28	46	37	33	33	32	38	45	41	31-57	26
Conversation Topics (26+)	50	44	58	36	39	37	35	47	60	61	60	60	58	35-61	26
Conversation Level (16+)	39	38	38	32	29	36	35	40	37	39	43	42	42	29-43	14

Table 3

MEANS AND STANDARD DEVIATIONS FOR ENVIRONMENT ITEMS

	Items							
	Intellectual		Esthetic		Critical		Vocational	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
Doctoral Universities								
1	5.8	1.2	4.1	1.5	5.2	1.3	3.6	1.7
2	5.9	1.4	4.0	1.4	5.2	1.4	3.9	1.6
3 (Indiana University)	5.1	1.3	4.5	1.4	4.8	1.3	4.5	1.6
Comprehensive Universities								
4	5.0	1.3	4.4	1.4	4.6	1.3	4.8	1.4
5	4.8	1.3	4.1	1.4	4.4	1.4	4.8	1.5
6	5.1	1.2	4.3	1.5	4.8	1.3	4.7	1.5
Community Colleges								
7	4.9	1.3	4.9	1.3	4.7	1.4	5.0	1.4
8	4.8	1.4	4.7	1.3	4.6	1.5	5.2	1.5
Liberal Arts Colleges								
9	4.7	1.2	4.2	1.2	4.3	1.3	4.6	1.3
10	6.4	.7	4.9	1.3	5.5	1.2	3.8	1.6
11	6.5	.9	4.4	1.6	6.3	.9	3.0	1.8
12	6.3	.8	4.7	1.3	5.6	1.2	3.4	1.6
13	5.8	1.0	5.0	1.3	5.3	1.1	3.5	1.5
TOTAL	5.5	1.3	4.4	1.5	5.0	1.4	4.2	1.7

Table 3 (cont.)

	Items (continued)							
	Student Relations		Student-Faculty Relations		Student-Administrator Relations		Operational Style	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
Doctoral Universities								
1	4.8	1.6	4.4	1.5	3.5	1.5	3.7	1.6
2	4.5	1.8	4.5	1.5	3.7	1.6	3.8	1.4
3	5.3	1.5	4.7	1.5	3.5	1.6	3.9	1.5
Comprehensive Universities								
4	5.0	1.5	4.9	1.4	3.7	1.6	4.1	1.5
5	5.0	1.5	4.9	1.3	3.4	1.5	4.0	1.3
6	4.7	1.6	4.8	1.5	3.7	1.6	4.0	1.5
Community Colleges								
7	4.9	1.5	5.0	1.5	4.1	1.6	4.7	1.3
8	4.7	1.7	4.6	1.7	4.2	1.8	4.5	1.7
Liberal Arts Colleges								
9	5.7	1.2	5.5	1.2	4.3	1.4	4.5	1.4
10	5.3	1.4	5.8	.9	3.9	1.6	3.6	1.4
11	4.8	1.6	5.2	1.3	3.8	1.6	4.2	1.4
12	5.4	1.3	5.8	1.1	4.3	1.5	4.2	1.5
13	5.2	1.4	5.5	1.2	3.9	1.6	4.5	1.5
TOTAL	4.9	1.6	4.9	1.5	3.7	1.6	4.0	1.5

Table 4

PERCENT OF STUDENTS AT EACH OF THIRTEEN COLLEGES WHOSE RATINGS ON THE ENVIRONMENT ITEMS WERE AT OR ABOVE A SPECIFIED LEVEL

Environment Items	Doctoral Universities			Comprehensive Universities			Community Colleges		Liberal Arts Colleges					Range	Difference
	1	2	3 (In. Univ)	4	5	6	7	8	9	10	11	12	13		
Intellectual (6+)	72	74	44	37	32	43	33	31	24	90	92	88	67	24-92	68
Esthetic (5+)	49	36	42	41	40	43	62	57	42	65	53	61	68	36-68	32
Critical (6+)	47	49	35	24	23	34	30	30	18	59	86	60	48	18-86	68
Vocational (5+)	33	38	53	61	63	60	66	66	59	31	20	25	25	20-66	46
Student Relations (6+)	41	36	52	43	45	40	35	34	64	55	41	55	48	34-64	30
Student-Faculty Relations (6+)	26	27	33	41	39	37	42	37	55	67	46	71	59	26-71	45
Student-Administrator Relations (5+)	26	32	26	31	22	35	41	48	47	38	33	49	37	22-49	27
Operational Style (5+)	34	32	34	42	35	38	57	54	53	28	44	45	51	28-57	29

Table 5

PERCENTAGES OF RESPONSES TO ITEMS EXAMINING OPINIONS ABOUT COLLEGE

Item	Total Sample	Indiana University
How well do you like college?		
I am enthusiastic about it	34	36
I like it	49	46
I am more or less neutral about it	15	15
I don't like it	3	3
If you could start over again, would you now go to the same college you are now attending?		
Yes, definitely	32	42
Probably yes	47	42
Probably no	16	13
No, definitely	5	3
What is your opinion about the following statement: "If students expect to benefit from what this college or university has to offer they have to take the initiative."		
Strongly agree	50	57
Agree	46	40
Disagree	4	3
Strongly disagree	1	0

Appendix A

Pace's
College Student Experiences Scale
Response Percentages of the Indiana University Sample

BACKGROUND INFORMATION

Age

76 under 22
21 22-27
4 28 or older

Sex

50 male
50 female

Are you single or married?

92 single
8 married

Year in college

22 1st year (freshman)
25 2nd year (sophomore)
27 3rd year (junior)
22 4th year (senior)
5 5th year or more (omitted from analysis)

Did you enter college here or did you transfer here from another college?

78 entered here
22 transferred from another college

Have you at any time while attending this college lived in a college dormitory, fraternity, sorority or other college housing?

85 yes
16 no

Where do you now live during the school year?

66 dormitory, fraternity, sorority, or other college housing
11 private apartment or room within walking distance of the college
18 house, apartment, etc. away from the campus
5 with my parents or relatives

At this college, up to now, what have most of your grades been?

9 A
23 A-, B+
33 B
30 B-, C+
5 C, C-, or lower

Which of the following comes closest to describing your major field of study (or your expected major)?

— Agriculture
32 Business
8 Education
1 Engineering
9 Fine Arts (art, music, drama, etc.)
9 Humanities (history, philosophy, literature, religion, languages, etc.)
1 Mathematics
8 Natural Sciences (biology, chemistry, physics, etc.)
12 Social Sciences (economics, political science, sociology, psychology, etc.)
21 Other: What? _____
_____
2 Undecided

What is your racial or ethnic identification?

93 White, Caucasian
3 Black
1 Hispanic, Mexican-American, Puerto Rican
2 Oriental or Asian
1 Other: What? _____
_____

Did either of your parents graduate from college?

41 no
30 yes, both parents
22 yes, father only
7 yes, mother only

When, or if, you graduate from college, do you expect to enroll for a more advanced degree?

61 yes
39 no

Are you going to school full-time or part-time?

93 full-time
7 part-time?

During the time school is in session, about how many hours a week do you usually spend on activities that are related to your school work? This includes time spent in class and time spent studying.

14 about 50 hours a week or more
22 about 40 hours a week
40 about 30 hours a week
17 about 20 hours a week
8 less than 20 hours a week

During the time school is in session, about how many hours a week do you usually spend working on a job?

61 None. I am not employed during the school year
15 About 10 hours or less
10 About 15 hours
7 About 20 hours
4 About 30 hours
2 About 40 hours
2 More than 40 hours

About how much of your college expenses this year are provided by your parents or family?

33 all or nearly all
21 more than half
15 less than half
31 none or very little

COLLEGE ACTIVITIES

Directions: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often	Often	Occasionally	Never	
				Library Experiences
13	22	46	20	Used the library as a quiet place to read or study materials you brought with you.
11	21	52	16	Used the card catalogue to find what materials there were on some topic.
4	10	53	33	Asked the librarian for help in finding material on some topic.
7	19	43	31	Read something in the reserve book room that was assigned by a faculty member.
7	17	43	33	Used indexes (such as the Reader's Guide to Periodical Literature) to journal articles.
7	18	44	30	Developed a bibliography or set of references for use in a term paper or some other class assignment.
4	14	42	41	Found some interesting material to read just by browsing in the stacks.
3	12	36	50	Ran down leads, looked for further references that were cited in things you read.
2	5	21	72	Used specialized bibliographies (such as Chemical Abstracts, Psychological Abstracts, etc.).
2	4	31	64	Gone back to read a basic reference or document that other authors had often referred to.
				Experiences with Faculty
19	33	47	2	Talked with a faculty member.
13	32	49	6	Asked your instructor for information related to a course you were taking (grades, make-up work, assignments, etc.).
10	19	53	19	Visited informally and briefly with an instructor after class.
6	19	56	19	Made an appointment to meet with a faculty member in his/her office.
5	16	52	26	Discussed ideas for a term paper or other class project with a faculty member.
5	9	49	37	Discussed your career plans and ambitions with a faculty member.
5	17	44	35	Asked your instructor for comments and criticisms about your work.
1	2	23	74	Had coffee, cokes, or snacks with a faculty member.
2	1	7	91	Worked with a faculty member in a research project.
2	3	19	77	Discussed personal problems or concerns with a faculty member.

Directions: In the courses you have had at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often	Often	Occasionally	Never	Course Learning
65	28	6	1	Took detailed notes in class.
63	34	2	1	Listened attentively in class meetings.
49	28	15	8	Underlined major points in the readings.
40	45	14	1	Tried to see how different facts and ideas fit together.
33	45	21	1	Thought about practical applications of the material.
27	38	30	5	Worked on a paper, project, or assignment where you had to integrate ideas from various parts of the course.
26	36	31	7	Summarized major points and information in your readings or notes.
21	36	39	4	Tried to explain the material to another student or friend.
17	22	38	24	Made outlines from class notes or readings.
6	10	52	33	Did additional readings on topics that were introduced and discussed in the class.

Directions: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often	Often	Occasionally	Never	Art, Music, Theater
9	14	43	35	Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the college.
3	4	43	50	Gone to an art gallery or art exhibit on the campus.
2	4	21	74	Read or discussed the opinions of art critics.
7	6	20	67	Participated in some art activity (painting, pottery, weaving, drawing, etc.).
26	29	35	10	Talked about music (classical, popular, musicians, etc.) with other students at the college.
18	26	39	17	Attended a concert or other music event at the college.
6	12	33	49	Read or discussed the opinions of music critics.
7	3	9	81	Participated in some music activity (orchestra, chorus, etc.).
7	13	46	34	Talked about the theater (plays, musicals, dance, etc.) with other students at the college.
7	12	41	42	Seen a play, ballet, or other theater performance at the college.
3	6	23	68	Read or discussed the opinions of drama critics.
3	2	9	86	Participated in or worked on some theatrical production (acted, danced, worked on scenery, etc.).

Directions: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often	Often	Occasionally	Never	Student Union
14	23	55	9	Had meals, snacks, etc. at the student union or student center.
13	26	49	12	Looked at the bulletin board for notices about campus events.
11	20	49	21	Met your friends at the student union or student center.
10	19	42	29	Sat around in the union or center talking with other students about your classes and other college activities.
10	15	38	37	Used the lounge(s) to relax or study by yourself.
7	17	53	24	Seen a film or other event at the student union or center.
3	8	47	42	Attended a social event in the student union or center.
2	5	30	64	Heard a speaker at the student union or center.
5	8	39	49	Played games that were available in the student union or center (ping-pong, cards, pool, pinball, etc.).
2	5	20	73	Used the lounge(s) or meeting rooms to meet with a group of students for a discussion.

Very Often	Often	Occasionally	Never	Athletic and Recreation Facilities
20	26	35	20	Set goals for your performance in some skill.
17	22	35	27	Followed a regular schedule of exercise, or practice in some sport, on campus.
13	17	38	32	Used outdoor recreational spaces for casual and informal individual athletic activities.
12	17	32	39	Used outdoor recreational spaces for casual and informal group sports.
19	24	33	24	Used facilities in the gym for individual activities (exercise, swimming, etc.).
15	20	26	30	Used facilities in the gym for playing sports that require more than one person.
9	11	25	55	Sought instruction to improve your performance in some athletic activity.
17	12	17	54	Played on an intramural team.
4	4	14	76	Kept a chart or record of your progress in some skill or athletic activity.
5	2	5	88	Played in any varsity sport or athletic event.

Directions: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Clubs and Organizations

Very Often	Often	Occasionally	Never	
25	30	38	8	Looked in the student newspaper for notices about campus events and student organizations.
10	20	53	17	Attended a program or event put on by a student group.
10	16	54	21	Read or asked about a club, organization, or student government activity.
12	13	29	46	Attended a meeting of a club, organization, or student goverument group.
13	15	31	41	Voted in a student election.
9	13	42	36	Discussed policies and issues related to campus activities and student government.
14	7	19	60	Worked in some student organization or special project (publications, student government, social event, etc.).
9	10	35	47	Discussed reasons for the success or lack of success of student club meetings, activities, or events.
12	9	18	62	Worked on a committee.
6	5	13	76	Met with a faculty adviser or administrator to discuss the activities of a student organization.

Experience in Writing

Very Often	Often	Occasionally	Never	
33	39	25	3	Used a dictionary or thesaurus to look up the proper meaning of words.
39	40	17	4	Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice, and sequence of ideas or points as you were writing.
45	30	20	5	Wrote a rough draft of a paper or essay and then revised it yourself before handing it in.
36	28	24	12	Spent at least five hours or more writing a paper (not counting time spent in reading or at the library).
24	27	31	18	Asked other people to read something you wrote to see whether it was clear to them.
18	23	41	19	Referred to a book or manual about style of writing, grammar, etc.
15	19	38	28	Revised a paper or composition two or more times before you were satisfied with it.
7	15	37	41	Asked an instructor for advice and help to improve your writing.
7	10	30	53	Made an appointment to talk with an instructor who had criticized a paper you had written.
3	1	5	91	Submitted for publication an article, story, or other composition you had written.

Directions: In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often	Often	Occasionally	Never	Personal Experiences
33	37	27	3	Told a friend why you reacted to another person the way you did.
21	34	34	12	Discussed with other students why some groups get along smoothly, and other groups don't.
30	26	34	11	Sought out a friend to help you with a personal problem.
12	18	39	32	Elected a course that dealt with understanding personal and social behavior.
22	27	40	10	Identified with a character in a book or movie and wondered what you might have done under similar circumstances.
13	19	47	22	Read articles or books about personal adjustment and personality development.
5	12	42	41	Taken a test to measure your abilities, interests, or attitudes.
8	14	43	35	Asked a friend to tell you what he/she really thought about you.
8	13	38	42	Been in a group where each person, including yourself, talked about his/her personal problems.
2	3	19	77	Talked with a counselor or other specialist about problems of a personal nature.

Very Often	Often	Occasionally	Never	Student Acquaintances
38	35	25	2	Made friends with students whose academic major field was very different from yours.
28	30	39	4	Made friends with students whose interests were very different from yours.
27	36	34	3	Made friends with students whose family background (economic and social) was very different from yours.
26	28	41	6	Made friends with students whose age was very different from yours.
17	24	50	9	Made friends with students whose race was different from yours.
11	13	52	25	Made friends with students from another country.
17	29	42	12	Had serious discussions with students whose philosophy of life or personal values were very different from yours.
19	21	42	19	Had serious discussions with students whose religious beliefs were very different from yours.
13	19	46	22	Had serious discussions with students whose political opinions were very different from yours.
6	6	22	66	Invited a foreign student to go with you to a social activity (party, dinner, movie, etc.).

Directions: If you are now living in a dormitory or fraternity/sorority, about how often have you done each of the following in that residence unit during the current school year? Indicate your response by filling in one of the spaces to the left of each statement. If you do not live in a campus residence, omit these items.

Very Often	Often	Occasionally	Never	Dormitory or Fraternity/Sorority
50	30	16	4	Had lively conversations about various topics during dinner in the dining room or cafeteria.
35	29	28	8	Gone out with other students for late night snacks.
29	37	31	3	Offered to help another student (with course work, errands, favors, advice, etc.) who needed some assistance.
40	23	27	10	Participated in bull sessions that lasted late into the night.
18	32	43	8	Asked others for assistance in something you were doing.
21	19	46	14	Borrowed things (clothes, records, posters, books, etc.) from others in the residence unit.
24	21	41	15	Attended social events put on by the residence unit.
21	27	32	19	Studied with other students in the residence unit.
17	14	33	36	Helped plan or organize an event in the residence unit.
12	11.	22	55	Worked on some community service or fund raising project with other students in the residence unit.

Directions: Think of the most recent science laboratory course you have had at this college. In that course about how often have you done each of the following? If you have never had a science laboratory course, omit these items.

Very Often	Often	Occasionally	Never	Science Lab Activities
24	35	27	14	Worked on laboratory exercises that could be successfully completed by following a set of written directions.
21	32	26	12	Made an effort to understand the reason for each step in the experimental procedure.
29	27	27	18	Read the experiment before coming to the lab.
9	31	41	19	Attempted to explain an experimental procedure to a classmate.
13	27	40	20	Completed other assigned readings related to laboratory exercises before coming to the lab.
8	12	41	38	Practiced to improve your skill in using lab equipment.
9	17	40	35	Repeated an experiment which didn't work.
12	16	46	26	Worked on a project in which you had to figure out what to do or look for.
11	17	36	36	Spent a half hour or more discussing a lab experiment.
2	2	21	76	Ran some lab tests which were not assigned by the instructor.

Directions: In conversations with other students at this college during the current school year, about how often have you talked about each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often	Often	Occasionally	Never	Topics of Conversation
44	37	18	1	Job prospects, money, careers.
33	41	25	2	Movies and popular music.
33	33	28	7	Social events, parties.
36	37	23	4	Boyfriends/girlfriends/spouse.
19	43	35	3	Current events in the news.
12	30	50	9	Major social problems such as peace, human rights, equality, justice.
14	29	52	7	Different life styles and customs.
6	17	56	21	The ideas and views of other people such as writers, philosophers, historians.
11	27	51	12	Topics related to science and technology such as energy, pollution, chemicals, military applications.
10	16	46	28	Fine arts—painting, theatrical productions, ballet, symphony, etc.

In these conversations with other students, about how often have you done each of the following?

Very Often	Often	Occasionally	Never	Information in Conversations
20	43	36	1	Referred to knowledge you had acquired in your reading.
14	36	46	4	Explored different ways of thinking about the topic.
13	35	49	4	Referred to something a professor said about the topic.
9	27	53	11	Subsequently read something that was related to the topic.
4	18	71	7	Changed your opinion as a result of the knowledge or arguments presented by others.
7	20	64	9	Persuaded others to change their mind as a result of the knowledge or arguments you cited.

ESTIMATE OF GAINS

Directions: In thinking over your experiences in college up to now, to what extent do you feel you have gained or made progress in each of the following respects? Indicate your response by filling in one of the spaces to the left of each statement.

Very Much	Quite a Bit	Some	Very Little	
14	38	35	14	Vocational training--acquiring knowledge and skills applicable to a career.
18	40	32	9	Acquiring background and specialization for further education in some professional, scientific, or scholarly field.
18	48	30	4	Gaining a broad general education about different fields of knowledge.
15	18	39	28	Developing an understanding and enjoyment of art, music, and drama.
8	24	47	22	Broadening your acquaintance and enjoyment of literature.
13	33	39	15	Writing clearly and effectively.
27	44	24	6	Becoming aware of different philosophies, cultures, and ways of life.
33	43	20	5	Developing your own values and ethical standards.
40	41	16	3	Understanding yourself--your abilities, interests, and personality.
39	41	19	1	Understanding other people and the ability to get along with different kinds of people.
18	43	28	12	Ability to function as a team member.
14	32	38	16	Developing good health habits and physical fitness.
7	20	49	24	Understanding the nature of science and experimentation.
7	20	46	27	Understanding scientific and technical developments and their applications in society.
14	46	33	7	Ability to think analytically and logically.
11	31	38	20	Quantitative thinking--understanding probabilities, proportions, etc.
22	52	24	2	Ability to put ideas together, to see relationships, similarities, and differences between ideas.
37	41	19	2	Ability to learn on your own, pursue ideas, and find information you need.

Colleges differ from one another in the extent to which they emphasize or stress various aspects of students' development. Thinking of your own experience at this college, to what extent do you feel that each of the following is emphasized? The responses are numbered from 7 to 1, with the highest and lowest points described. Fill in the space of whichever number best indicates your impression on this seven-point rating scale.

Emphasis on the development of academic, scholarly, and intellectual qualities

Strong emphasis	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Weak emphasis
	11	33	29	13	10	3	1	

Emphasis on the development of esthetic, expressive, and creative qualities

Strong emphasis	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Weak emphasis
	6	18	28	24	15	7	3	

Emphasis on being critical, evaluative, and analytical

Strong emphasis	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Weak emphasis
	8	27	28	20	11	4	2	

Emphasis on the development of vocational and occupational competence

Strong emphasis	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Weak emphasis
	8	23	22	23	11	8	4	

The next four ratings refer to relationships among people at the college. Again, thinking of your own experience, how would you rate these relationships on the seven-point scales?

Relationships with other students, student groups, and activities

Friendly Supportive Sense of belonging	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Competitive Uninvolved Sense of alienation
	22	30	23	13	7	4	2	

Relationships with faculty members

Approachable Helpful Understanding Encouraging	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Remote Difficult Impersonal Discouraging
	8	25	27	21	11	6	3	

Relationships with administrative offices and officials

Approachable Helpful Open-minded	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Remote Discouraging Unsympathetic
	3	8	15	26	18	18	13	

General style of operation as an organization i.e. college policies, procedures, rules and regulations, etc.

Flexible Open Adaptive Considerate	[7]	[6]	[5]	[4]	[3]	[2]	[1]	Rigid Resistant Bound by regulations
	3	11	20	28	18	12	8	

When you answered the statements about how often you had done various things during the school year, you answered them by indicating "never," "occasionally," "often," or "very often." We have picked out a few of those statements which we now want you to answer in a more exact way. For each of the items below, fill in one of the spaces to the left which best indicates the number of times you have engaged in the activity during the current school year.

→ More than once a week
→ About once a week
→ About once or twice a month
→ About three to six times during the year
→ Once or twice during the year
→ Never

3	8	20	28	30	12	Used the library card catalogue to find what materials there were on some topic.
1	5	21	33	24	17	Made an appointment to meet with a faculty member in his/her office.
20	26	25	12	9	8	Summarized major points and information in your course readings or class notes.
4	8	21	23	27	17	Attended a program or event put on by a student group.
3	10	20	21	27	20	Asked other people to read something you wrote to see whether it was clear to them.
11	10	21	25	23	11	Identified with a character in a book or movie and wondered what you might have done under similar circumstances.
13	17	25	18	17	10	Had serious discussions with students whose philosophy of life or personal values were very different from yours.

OPINIONS ABOUT COLLEGE

How well do you like college?

36 I am enthusiastic about it
46 I like it
15 I am more or less neutral about it
3 I don't like it

If you could start over again, would you go to the same college you are now attending?

42 Yes, definitely
42 Probably yes
13 Probably no
3 No, definitely

What is your opinion about the following statement: "If students expect to benefit from what this college or university has to offer they have to take the initiative."

57 Strongly agree
40 Agree
3 Disagree
-- Strongly disagree